

**MERCAPTOACETIC ACID****0915**

November 1998

**CAS No: 68-11-1**  
 RTECS No: AI5950000  
 UN No: 1940  
 EC No: 607-090-00-6

Thioglycolic acid  
 Ethanethiol-2-acid-1  
 2-Mercaptoethanoic acid  
 $C_2H_4O_2S$  /  $HSCH_2COOH$   
 Molecular mass: 92.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
<b>EXPLOSION</b>			

EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
<b>Inhalation</b>	Abdominal cramps. Burning sensation. Cough. Laboured breathing. Shortness of breath. Sore throat. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention. See Notes.
<b>Skin</b>	MAY BE ABSORBED! Redness. Skin burns. Pain. Blisters. (See Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
<b>Eyes</b>	Redness. Pain. Loss of vision. Severe deep burns.	Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Burning sensation. Shock or collapse.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Chemical protection suit including self-contained breathing apparatus.	<p>T Symbol            R: 23/24/25-34            S: (1/2-)25-27-28-45            UN Hazard Class: 8            UN Pack Group: II</p> <p>Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs.</p>

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-80G20	Separated from strong oxidants, strong bases, food and feedstuffs and combustible substances. Keep in a well-ventilated room.

### IMPORTANT DATA

**Physical State; Appearance**

VISCOUS COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Chemical Dangers**

The substance decomposes on burning producing toxic fumes of sulfur oxides and hydrogen sulfide. The substance is a medium strong acid. Reacts with strong oxidants, alkalis and organic compounds. Attacks steel, stainless steel and aluminium.

**Occupational Exposure Limits**

TLV: 1 ppm; 3.8 mg/m<sup>3</sup> (as TWA) (skin) (ACGIH 1997).  
MAK not established.

**Routes of Exposure**

The substance can be absorbed into the body by inhalation, through the skin, and by ingestion.

**Inhalation Risk**

A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.

**Effects of Short-term Exposure**

The substance is corrosive to the eyes the skin and the respiratory tract. Inhalation of the vapour may cause lung oedema (see Notes). Exposure above the OEL may result in death. The effects may be delayed. Medical observation is indicated. See Notes.

### PHYSICAL PROPERTIES

Boiling point: 120°C

Melting point: -16.5°C

Relative density (water = 1): 1.3

Solubility in water: miscible

Vapour pressure, kPa at 18°C: 1.3

Relative vapour density (air = 1): 3.2

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.00

Flash point: 126°C o.c.

Auto-ignition temperature: 350°C

Explosive limits, vol% in air: 5.9-?

Octanol/water partition coefficient as log Pow: 0.05

### ENVIRONMENTAL DATA

### NOTES

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible